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SINCE FILE

ENTRY

0.22

TOTAL.

0.22

SESSION

FILE 'REGISTRY' ENTERED AT 14:55:31 ON 04 FEB 2009

COST IN U.S. DOLLARS

FULL ESTIMATED COST

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Property values tagged with IC are from the ${\tt ZIC/VINITI}$ data file provided by ${\tt InfoChem.}$

STRUCTURE FILE UPDATES: 3 FEB 2009 HIGHEST RN 1100396-01-7
DICTIONARY FILE UPDATES: 3 FEB 2009 HIGHEST RN 1100396-01-7

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TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting ${\tt SmartSELECT}$ searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

= >

Uploading C:\Program Files\Stnexp\Queries\10588049.str

ring nodes : chain bonds : 5-22 6-9 9-10 9-11 22-23 23-24 31-37 36-38 39-40 39-41 ring bonds : 1-2 1-6 1-8 2-3 3-4 4-5 4-7 5-6 7-8 10-17 10-21 11-12 11-16 12-13 13-14 14-15 15-16 17-18 18-19 19-20 20-21 24-25 24-29 25-26 26-27 27-28 28-29 31-32 31-36 32-33 33-34 33-39 34-35 35-36 36-39 exact/norm bonds : 1-2 1-6 1-8 2-3 3-4 4-5 4-7 5-6 5-22 7-8 22-23 31-37 exact bonds : 6-9 9-10 9-11 23-24 31-32 31-36 32-33 33-34 33-39 34-35 35-36 36-38 36-39 39-40 39-41 normalized bonds : 10-17 10-21 11-12 11-16 12-13 13-14 14-15 15-16 17-18 18-19 19-20 20-21 24-25 24-29 25-26 26-27 27-28 28-29 isolated ring systems : containing 1 : 10 : 11 : 24 : 31 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:CLASS 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:CLASS 23:CLASS 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:CLASS 38:CLASS 39:Atom 40:CLASS 41:CLASS 38:CLASS 39:Atom 40:CLASS 41:CLASS 38:Atom 36:Atom 37:CLASS 38:CLASS 39:Atom 36:Atom 37:CLASS 38:CLASS 38:Atom 36:Atom 37:CLASS 38:CLASS 38:Atom 37:CLASS 38:CLASS 38:Atom 37:CLASS 38:CLASS 38:CLASS 38:Atom 37:CLASS 38:Atom 37:CLASS 38:CLASS 38:Atom 37:CLASS 38:CLASS 38:Atom 37:CLASS 38:Atom 37:CLASS 38:Atom 37:CLASS 38:Atom 37:CLASS 38:CLASS 38:Atom 37:CLASS 38:Atom 37:Atom 37

L1 STRUCTURE UPLOADED

=> d 11 L1 HAS NO ANSWERS L1 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

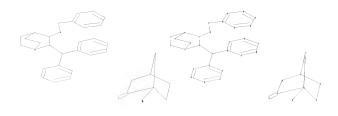
=> s 11 full FULL SEARCH INITIATED 14:55:54 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS SEARCH TIME: 00.00.01 0 ANSWERS

L2 0 SEA SSS FUL L1

_-

Uploading C:\Program Files\Stnexp\Queries\10588049a.str



```
ring nodes :
1 2 3 4 5 6 7 8 10 11 12 13 14 15 16 17 18 19 20 21 24 25 26
27 28 29 31 32 33 34 35 36 39
chain bonds :
5-22 6-9 9-10 9-11 22-23 23-24 31-37 36-38
ring bonds :
1-2 1-6 1-8 2-3 3-4 4-5 4-7 5-6 7-8 10-17 10-21 11-12 11-16 12-13
13-14 14-15 15-16 17-18 18-19 19-20 20-21 24-25 24-29 25-26 26-27 27-28 28-29 31-32 31-36 32-33 33-34 33-39 34-35 35-36 36-39
exact/norm bonds :
1-2 1-6 1-8 2-3 3-4 4-5 4-7 5-6 5-22 7-8 22-23 31-37
exact bonds :
6-9 9-10 9-11 23-24 31-32 31-36 32-33 33-34 33-39 34-35 35-36 36-38
36-39
normalized bonds :
isolated ring systems :
containing 1 : 10 : 11 : 24 : 31 :
```

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:CLASS 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:CLASS 23:CLASS 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 27:Atom 23:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:CLASS 38:CLASS

chain nodes : 9 22 23 37 38

Match level :

39:Atom

L3 STRUCTURE UPLOADED

=> d 13 L3 HAS NO ANSWERS L3 STR

chain nodes :

28-29

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

0 ANSWERS

Structure attributes must be viewed using STN Express query preparation.

=> s 13 full FULL SEARCH INITIATED 14:57:30 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 9 TO ITERATE

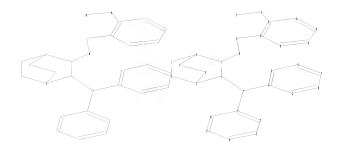
100.0% PROCESSED 9 ITERATIONS SEARCH TIME: 00.00.01

L4 0 SEA SSS FUL L3

Uploading C:\Program Files\Stnexp\Queries\10588049b.str

```
9 22 23 ring nodes:
1 2 3 4 5 6 7 8 10 11 12 13 14 15 16 17 18 19 20 21 24 25 26 27 28 29 chain bonds:
5-22 6-9 9-10 9-11 22-23 23-24 ring bonds:
1-2 1-6 1-8 2-3 3-4 4-5 4-7 5-6 7-8 10-17 10-21 11-12 11-16 12-13 13-14 14-15 15-16 17-18 18-19 19-20 20-21 24-25 24-29 25-26 26-27 27-28
```

```
exact/norm bonds :
1-2 1-6 1-8 2-3 3-4 4-5 4-7 5-6 5-22 7-8 22-23
exact bonds :
6-9 9-10 9-11 23-24
normalized bonds :
10-17 \quad 10-21 \quad 11-12 \quad 11-16 \quad 12-13 \quad 13-14 \quad 14-15 \quad 15-16 \quad 17-18 \quad 18-19 \quad 19-20 \quad 20-21 \quad 19-19 \quad 19-1
24-25 24-29 25-26 26-27 27-28 28-29
isolated ring systems :
containing 1 : 10 : 11 : 24 :
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:CLASS 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:CLASS 23:CLASS 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom
29:Atom
L5 STRUCTURE UPLOADED
=> d 15
L5 HAS NO ANSWERS
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
Structure attributes must be viewed using STN Express query preparation.
=> s 15 full
FULL SEARCH INITIATED 14:58:31 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1044 TO ITERATE
100.0% PROCESSED 1044 ITERATIONS
                                                                                                                                                                                                                                                431 ANSWERS
SEARCH TIME: 00.00.01
L6
                                          431 SEA SSS FUL L5
Uploading C:\Program Files\Stnexp\Oueries\10588049c.str
```



```
9 22 23 31 32
 ring nodes :
  1 2 3 4 5 6 7 8 10 11 12 13 14 15 16 17 18 19 20 21 24 25 26
 27 28 29
chain bonds :
 5-22 6-9 9-10 9-11 22-23 23-24 25-31 31-32
 ring bonds :
 1-2 1-6 1-8 2-3 3-4 4-5 4-7 5-6 7-8 10-17 10-21 11-12 11-16 12-13
 13 - 14 \quad 14 - 15 \quad 15 - 16 \quad 17 - 18 \quad 18 - 19 \quad 19 - 20 \quad 20 - 21 \quad 24 - 25 \quad 24 - 29 \quad 25 - 26 \quad 26 - 27 \quad 27 - 28 \quad 27 -
 28-29
 exact/norm bonds :
 1-2 1-6 1-8 2-3 3-4 4-5 4-7 5-6 5-22 7-8 22-23 25-31
 exact bonds :
 6-9 9-10 9-11 23-24 31-32
normalized bonds :
 10-17 10-21 11-12 11-16 12-13 13-14 14-15 15-16 17-18 18-19 19-20 20-21
 24-25 24-29 25-26 26-27 27-28 28-29
isolated ring systems :
containing 1 : 10 : 11 : 24 :
```

Match level :

chain nodes :

 1:Atom
 2:Atom
 3:Atom
 4:Atom
 5:Atom
 6:Atom
 7:Atom
 8:Atom
 9:CLASS
 10:Atom

 11:Atom
 12:Atom
 13:Atom
 14:Atom
 15:Atom
 16:Atom
 17:Atom
 18:Atom
 19:Atom

 20:Atom
 21:Atom
 22:CLASS
 23:CLASS
 24:Atom
 25:Atom
 26:Atom
 27:Atom
 28:Atom

 29:Atom
 31:CLASS
 32:CLASS
 24:Atom
 25:Atom
 26:Atom
 27:Atom

=> d 17 L7 HAS NO ANSWERS L7 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s 17 full

FULL SEARCH INITIATED 15:02:48 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 500 TO ITERATE

100.0% PROCESSED 500 ITERATIONS

335 ANSWERS

SEARCH TIME: 00.00.01

L8 335 SEA SSS FUL L7

=> file casreact

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 748.32 748.54

FULL ESTIMATED COST

FILE 'CASREACT' ENTERED AT 15.03:47 ON 04 FEB 2009 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE CONTENT: 1840 - 1 Feb 2009 VOL 150 ISS 6

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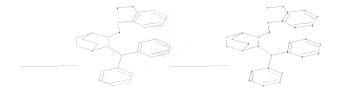
* * CASREACT now has more than 16.5 million reactions * * *

CASREACT contains reactions from CAS and from: ZIC/VINITI database (1974-1999) provided by InfoChem; INFI data prior to 1986; Biotransformations database compiled under the direction of Professor Dr. Klaus Kieslich; organic reactions, portions copyright 1996-2006 John Wiley & Sons, Ltd., John Wiley and Sons, Inc., Organic Reactions Inc., and Organic Syntheses Inc. Reproduced under license. All Rights Reserved.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=>

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chain nodes : 9 22 23 31 32

fragments assigned product role:

containing 1

```
ring nodes :
 1 2 3 4 5 6 7 8 10 11 12 13 14 15 16 17 18 19 20 21 24 25 26
27 28 29
chain bonds :
5-22 6-9 9-10 9-11 22-23 23-24 25-31 31-32
ring bonds :
1-2 1-6 1-8 2-3 3-4 4-5 4-7 5-6 7-8 10-17 10-21 11-12 11-16 12-13
13-14 14-15 15-16 17-18 18-19 19-20 20-21 24-25 24-29 25-26 26-27 27-28
28-29
exact/norm bonds :
1-2 1-6 1-8 2-3 3-4 4-5 4-7 5-6 5-22 7-8 22-23 25-31
exact bonds :
6-9 9-10 9-11 23-24 31-32
normalized bonds :
10-17 10-21 11-12 11-16 12-13 13-14 14-15 15-16 17-18 18-19 19-20 20-21
24-25 24-29 25-26 26-27 27-28 28-29
isolated ring systems :
containing 1 : 10 : 11 : 24 :
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:CLASS 10:Atom
1:Atom 12:Atom 13:Atom 14:Atom 15:Atom 15:Atom 17:Atom 19:Atom 19:Atom 20:Atom 21:Atom 22:CLASS 23:CLASS 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 28:Atom 27:Atom 28:Atom 28:Atom 27:Atom 28:Atom 28:At
```

L9 STRUCTURE UPLOADED

=> d 19 L9 HAS NO ANSWERS

L9 STR

 * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s 19 full

FULL SEARCH INITIATED 15:04:09 FILE 'CASREACT'

SCREENING COMPLETE - 64 REACTIONS TO VERIFY FROM 10 DOCUMENTS

100.0% DONE 64 VERIFIED 35 HIT RXNS 7 DOCS SEARCH TIME: 00.00.01

L10 7 SEA SSS FUL L9 (35 REACTIONS)

=> d ibib abs fhit tot

L10 ANSWER 1 OF 7 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 143:230050 CASREACT

TITLE: Process for preparation of

1-(2S,3S)-2-benzhydry1-N-(5-tert-buty1-2-

methoxybenzyl)quinuclidin-3-amine

INVENTOR(S): Basford, Patricia Ann; Post, Ronald James; Smith,

Julian Duncan; Taber, Geraldine Patricia

PATENT ASSIGNEE(S): Pfizer Products Inc., USA

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

| PATENT NO. | | | | | | | | APPLICATION NO. | | | | | DATE | | | | |
|------------|-------------|------|------------|-------------|-----|--------------------------------|------|--|----------------|------|------|------|------|----------|------|-----|-----|
| | | | | | | | | | WO 2005-IB221 | | | | | 20050126 | | | |
| | W: | AE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | co, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | KZ, | LC, |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NI, |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, |
| | | TJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW |
| | RW: | BW, | GH, | GM, | KE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, |
| | | AZ, | BY, | KG, | KZ, | MD, | RU, | TJ, | TM, | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, |
| | | EE, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, | IS, | IT, | LT, | LU, | MC, | NL, | PL, | PT, |
| | | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, |
| | | | NE, | | | | | | | | | | | | | | |
| | | | | | | | | | AU 2005-210259 | | | | | | | | |
| CA | 2554360 | | | | | | | CA 2005-2554360 | | | | 60 | 2005 | 0126 | | | |
| EP | 1713801 | | | A1 20061025 | | | | EP 2005-702373 | | | | 3 | 2005 | 0126 | | | |
| EΡ | 1713 | | | | | | | | | | | | | | | | |
| | R: | | | | | | | | | | | | | NL, | | MC, | PT, |
| | | | | | | | | | | | | | | SK, | | | |
| CN | 1914 | 202 | | A | | 2007 | 0214 | | C | N 20 | 05-8 | 0003 | 898 | 2005 | 0126 | | |
| BR | 2005007334 | | | A 20070703 | | | | BR 2005-7334 JP 2006-550351 AT 2005-702373 RU 2006-127969 | | | | 2005 | 0126 | | | | |
| JP | 2007 | 5197 | 10 | Т | | 2007 | 0719 | | J. | P 20 | 06-5 | 5035 | 1 | 2005 | 0126 | | |
| ΑT | 3808 | 11 | | Т | | 2007 | 1215 | | A | T 20 | 05-7 | 0237 | 3 | 2005 | 0126 | | |
| RU | 2320 | 659 | | С | 1 | 2008 | 0327 | | R | J 20 | 06-1 | 2796 | 9 | 2005 | 0126 | | |
| ES | 2296 | 131 | | Т | 3 | 2008 | 0416 | | E | S 20 | 05-7 | 0237 | 3 | 2005 | 0126 | | |
| ИО | 2006003268 | | | A 20060815 | | | | NO 2006-3268 | | | | 2006 | 0713 | | | | |
| IN | 2006DN04065 | | A 20070713 | | | IN 2006-DN4065 MX 2006-8441 | | | 5 | 2006 | 0714 | | | | | | |
| MX | 2006 | 0084 | 41 | A | | 2006 | 1002 | | М | X 20 | 06-8 | 441 | | 2006 | 0726 | | |
| | 2006 | | | | | | | | K | R 20 | 06-7 | 1557 | 3 | 2006 | 0801 | | |
| KR | 8120 | 46 | | В | 1 | 2008 | 0310 | | | | | | | | | | |
| RIT: | Y APP | LN. | INFO | .: | | | | | | | | | | 2004 | | | |
| | | | | | | | | | | 20 | 05-I | B221 | | 2005 | 0126 | | |
| | | | | | | | | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 143:230050 GI

PR

AB This invention relates to an improved process for the preparation and purification

of (2S,3S)-2-benzhydryl-M-(5-tert-butyl-2-methoxybenzyl)quinuclidin-3-amine (I), which is useful as an antiemetic agent (no biol. testing data), and its pharmaceutically acceptable salts. In particular, the invention is directed to an improved synthesis of the monohydrate monocitrate salt of I.

RX(1) OF 6 A + B ===> C...

C: CM 2

RX(1) RCT A 862543-53-1

```
STAGE(1)
RGT D 1333-74-0 H2
CAT 7440-05-3 Pd
SOL 7732-18-5 Water, 67-63-0 Me2CHOH
CON 4 hours, 75 - 80 deg C, 50 psi

STAGE(2)
RCT B 85943-26-6
SOL 67-63-0 Me2CHOH
CON 2 hours, 75 - 80 deg C

STAGE(3)
RGT D 1333-74-0 H2
CON SUBSTAGE(1) 30 - 40 deg C
SUBSTAGE(2) 3.5 hours, 75 - 80 deg C, 50 psi
SUBSTAGE(2) 10 hours, 25 - 30 deg C, 10 psi
```

SUBSTAGE(4) 11.5 hours, 75 - 80 deg C, 50 psi SUBSTAGE(5) 10 hours, 25 - 30 deg C, 10 psi

SUBSTAGE(6) 3 hours, 75 - 80 deg C, 50 psi

PRO C 862543-52-0

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 7 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 141:6864 CASREACT

TITLE: Tritiation of nonpeptide substance P antagonist CP-96,345 and its azido analogue. Synthetic and

characterization details

AUTHOR(S): Egan, Judith A.; Filer, Crist N.

CORPORATE SOURCE: PerkinElmer Life and Analytical Sciences, Inc.,

Boston, MA, 02118, USA

Applied Radiation and Isotopes (2003), 59(5-6), SOURCE:

333-335

CODEN: ARISEF; ISSN: 0969-8043

Elsevier Science B.V.

PUBLISHER: DOCUMENT TYPE: Journal

LANGUAGE: English

$$R_1$$
 NH OMe R_1 R_2

AB CP-96,345 was the first nonpeptide antagonist discovered for the SP receptor and [3H] CP-96,345 was required to study the mechanism of receptor action. The radioligand I (R1 = T, R2 = H) was prepared at high specific activity by catalytic dehalogenation of a dibrominated precursor I (R1 = Br, R2 = H). The photoaffinity analog I (R1 = T, R2 = N3) was also prepared from precursor I (R1 = Br, R2 = NH2) using the same approach followed by diazotization and azidation with NaN3.

Ι

RX(1) OF 4 A ===> B

RX(1) RCT A 135007-76-0 RGT C 10028-17-8 Tritium PRO B 135007-77-1

CAT 7440-05-3 Pd

SOL 64-17-5 EtOH

CON 1 hour, room temperature

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 7 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 137:369932 CASREACT

TITLE: Cooperative problem solving: investigation into the

oxidative degradation of CJ-11,974-01 and

[14C]CJ-11,974-01

AUTHOR(S): Zandi, Kathleen S.; Huff, Barbara B.; Kamel, Amin; Larmann, John; Massefski, Walter W.; McCarthy, Keith

E.; Miller, Sandra A.; Smith, Scott W.

CORPORATE SOURCE: Radiochemical Synthesis, Pfizer Central Research,

Groton, CT, 06340, USA

SOURCE: Synthesis and Applications of Isotopically Labelled
Compounds, Proceedings of the International Symposium,

7th, Dresden, Germany, June 18-22, 2000 (2001), Meeting Date 2000, 232-235. Editor(s): Pleiss, Ulrich; Voges, Rolf. John Wiley & Sons Ltd::

Chichester, UK.

CODEN: 69CIJC; ISBN: 0-471-49501-8
DOCUMENT TYPE: Conference

Conference English

Ι

LANGUAGE: GI

AB Bulk CJ-11,974-01 (1) is stable as a drug substance but degrades over time in some solid dosage formulations. Minor impurities were identified as synthetic intermediates and a major degradant has a mol. weight of M+32 by mass spectral anal., suggesting the addition of two oxygen atoms. Using solution phase hydrogen/deuterium exchange and HPLC/ESI/MS/MS techniques, the degradation product was identified as the benzyl hydroperoxide derivative The [14C]CJ-11,974-01 in ethanol solution is quite stable but is unstable as a solid, degrading to the same M+32 degradation product over a relatively short period of time. Storage of solid [14C]CJ-11,974-01 under inert atmospheric or at

lower temps. did not considerably slow the degradation The carbon-14 labeled degradant was isolated by normal and reverse phase chromatogs, and identified by NMR spectroscopy and MS as the iso-Pr peroxide.

(2)

RX(2) OF 6 ...C + E ===> F...

F YIELD 88%

RX(2) RCT C 475146-68-0

STAGE(1) RGT G 79-37-8 (COC1)2 SOL 75-09-2 CH2C12

STAGE(2) RCT E 142035-23-2

PRO F 475146-69-1

NTE radiochem.
REFERENCE COUNT: 2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 7 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 134:266175 CASREACT

TITLE: Synthesis and stability of substance P antagonists

[14C]CJ-11,974-01 and [14C]CJ-11,972-01

AUTHOR(S): Zandi, K. S.; Miller, S. A.; McCarthy, K. E.; Massefski, W. W.; Kamel, A.

CORPORATE SOURCE: Radiochemical Synthesis, Pfizer Central Research,

Ι

Greton, CT, 06340, USA

Groton, CT, 06340, USA
SOURCE: Isotope Production and Applications in the 21st

UNRUE: ISOTOPE Production and Applications in the 21st Century, Proceedings of the International Conference on Isotopes, 3rd, Vancouver, BC, Canada, Sept. 6-10, 1999 (2000), Meeting Date 1999, 400-402. Editor(s): Stevenson, Niqel R. World Scientific Publishing Conference on Stevenson C

Pte. Ltd.: Singapore, Singapore.

CODEN: 69ATWE
DOCUMENT TYPE: Conference
LANGUAGE: English

GI

AB CJ-11,974-01 (I, R = CHMe2) and CJ-11,972-01 (I, R = CMe3) are structurally related substance P antagonists currently in development (-01 indicates the HCl salt). The synthesis of radiolabeled analogs was completed to aid in full ADME characterization. A straightforward route to both compds. was developed via directed lithiation/metal halogen exchange and carbonation. Conversion to the benzylic amine was accomplished by one of two methods. In the case of [14C]CJ-11,974-01, the carboxylic acid chloride was treated with a chiral amine followed by amide reduction, and for [14C]CJ-11,972-01, conversion to the aldehyde was followed by reductive amination. While both [14C]CJ-11,974-01 and [14C]CJ-11,972-01 are quite stable in solution, when stored as a solid, [14C]CJ-11,974-01 degrades to one major degradation product over a relatively short time period. The carbon-14 labeled degradation product was isolated from low specific activity material and identified by HPLC/MS/MS and NMR to be an iso-Pr peroxide. Studies were performed to identify the factors responsible for the oxidative degradation of [14C]CJ-11,974-01, which included salt form, storage conditions and salt formation solvent. Of all the variables studied over a three week period, only a change in the salt form prevented this oxidative degradation

●x HCl

D

STAGE(1)
RGT E 109-72-8 BuLi
SOL 109-99-9 THF

STAGE(2)
RCT B 51-90-1

STAGE(3)
RGT F 79-37-8 (COC1)2

STAGE(4)
RCT C 142035-23-2
RGT G 121-44-8 Et3N

STAGE(5) RGT H 14044-65-6 BH3-THF

PRO D 331676-67-6

L10 ANSWER 5 OF 7 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 125:49301 CASREACT

TITLE: Preparation of quinuclidine derivatives as substance P

antagonists

INVENTOR(S): Lowe, John Adams
PATENT ASSIGNEE(S): Pfizer Inc., India
SOURCE: Indian, 69 pp.
CODEN: INXXAP

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

IN 173570 A1 19940604 IN 1989-DE1094 19891123
PRIORITY APPLN. INFO:: MARPAT 125:49301

MARPAT 125:49301

GI

AB Quinuclidine derivs. [I; Ar = thienyl, Ph, halophenyl; R = H, Cl-4 alkyl; Rl = C5-7 cycloalkyl, norbornyl, pyrrolyl, 2,3-dihydrobenzofuranyl, (alkoxy)thienyl, (hydroxy)pyridyl, quinolinyl, indolyl, (alkoxy)naphthyl, biphenyl, 2,3-methylenedioxyphenyl, substituted Ph, etc.; R2 = branched alkyl or alkenyl, C5-7 cycloalkyl, furyl, thienyl, (substituted) Ph, phenylalkyl, Cl-3 alkoxy, etc.] are prepared for use as substance P antagonists for treatment of gastrointestinal and central nervous (psychotic) disorders, inflammatory diseases, pain, and migraine. I are prepared by reduction of the corresponding quinuclidine imine or amide. Thus, 3-keto-2-benzhydrylquinuclidine condensed with cyclohexylmethylamine to form an imine, which was reduced with 9-borabicyclononane in THF to cis-3-(cyclohexylmethylamino)-2-benzhydrylquinuclidine.

RX(3) OF 42 ...M ===> N

(3)

М

N YIELD 46%

RCT M 177746-08-6 RX(3)

RGT O 540-69-2 Ammonium formate

PRO N 160551-65-5 CAT 7440-05-3 Pd SOL 64-17-5 EtOH

L10 ANSWER 6 OF 7 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 122:9904 CASREACT

TITLE: Synthesis of a benzo[b]-1,5-naphthyridine derivative as a potential constrained NKI receptor antagonist AUTHOR(S): Viti, Giovanni; Giannotti, Danilo; Nannicini, Rossano;

Balacco, Giuseppe; Pestellini, Vittorio CORPORATE SOURCE: Chem. Res. Dep., Firenze, 50131, Italy

SOURCE: Tetrahedron Letters (1994), 35(32), 5939-42

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

LANGUAGE: English

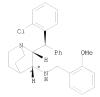
AB A short synthesis of a cyclic constrained analog I of the potent Substance P antagonist (±)-CP-96345 is described. The key feature is the formation of the benzo[b]-1,5-naphthyridine system at the very last step of the synthesis through an intramol. arylation of an amine promoted by a strong base. If the tricyclic system was synthesized first,

(5)

2-methoxybenzylation of both the nitrogen atoms occurred.

RX(5) OF 9 ...O + R ===> A...

Ι



A YIELD 37%

RX(5) RCT 0 159553-07-8, R 6850-57-3 RGT S 16853-85-3 LiAlH4 PRO A 159553-08-9 L10 ANSWER 7 OF 7 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 117:48289 CASREACT

TITLE: The discovery of (2S,3S)-cis-2-(diphenvlmethvl)-N-((2-

methoxyphenyl)methyl]-1-azabicyclo[2.2.2]octan-3-amine as a novel, nonpeptide substance P antagonist

Lowe, John A., III; Drozda, Susan E.; Snider, R. AUTHOR(S): Michael; Longo, Kelly P.; Zorn, Stevin H.; Morrone, Jean; Jackson, Elisa R.; McLean, Stafford; Brvce,

Dianne K.; et al.

CORPORATE SOURCE: Cent. Res. Div., Pfizer, Inc., Groton, CT, 06340, USA SOURCE:

Journal of Medicinal Chemistry (1992), 35(14),

2591-600

CODEN: JMCMAR; ISSN: 0022-2623 DOCUMENT TYPE: Journal

LANGUAGE: English GI

NHCH2 OMe CHPh2 Ι

The structure-activity relationship of a series of quinuclidines is described which culminated in the first potent, selective, nonpeptide substance P (SP) antagonist, (2S,3S)-cis-2-(diphenylmethyl)-N-[(2methoxyphenyl)methyl]-1-azabicyclo[2.2.2]octan-3-amine, (I; CP-96,345). I is a potent displacer of [3H]SP binding in human IM-9 cells and blocks SP-induced and capsaicin-induced plasma extravasation, as well as SP-induced salivation in the rat in vivo. I may both help to further the understanding of the interactions of small mols. with peptide receptors and serve to evaluate the therapeutic potential of a SP antagonist.

RX(1) OF 35

RCT A 6850-57-3, B 32531-66-1 RX(1) PRO C 135095-42-0 SOL 108-88-3 PhMe, 109-99-9 THF (FILE 'HOME' ENTERED AT 14:55:22 ON 04 FEB 2009)

| | FILE | 'REGISTRY' | ENTERED | AT | 14:55:31 | ON | 04 | FEB | 2009 |
|----|------|------------|----------|------|----------|----|----|-----|------|
| L1 | | STRU | CTURE UP | LOAI | DED | | | | |

L2 0 S L1 FULL

L3 STRUCTURE UPLOADED

L4 0 S L3 FULL

L5 STRUCTURE UPLOADED L6 431 S L5 FULL

STRUCTURE UPLOADED L7

L8 335 S L7 FULL

FILE 'CASREACT' ENTERED AT 15:03:47 ON 04 FEB 2009 1.9 STRUCTURE UPLOADED

L10 7 S L9 FULL

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